

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	IS&R	L1	267	(310/320).CCLS.	USPAT	2006/03/29 10:14	
2	IS&R	L2	101	(310/320).CCLS.	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2006/03/29 10:17	
3	IS&R	L3	465	(310/348).CCLS.	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2006/03/29 10:26	
4	IS&R	L4	623	(310/348).CCLS.	USPAT	2006/03/29 10:34	
5	IS&R	L5	208	(310/363).CCLS.	USPAT	2006/03/29 10:37	
6	IS&R	L6	62	(310/363).CCLS.	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2006/03/29 10:38	
7	IS&R	L7	208	(310/365).CCLS.	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2006/03/29 10:41	
8	IS&R	L8	355	(310/365).CCLS.	USPAT	2006/03/29 10:45	
9	IS&R	L9	337	(310/312).CCLS.	USPAT	2006/03/29 10:51	

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10	IS&R	L10	148	(310/312).CCLS.	US- PGPUB ; EPO; JPO; DERWE NT; IBM_T DB	2006/03/2 9 10:51	

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1	BRS	L1	11678	first adj1 (resonat\$3 or oscillat\$4 or vibrat\$3) and (second or different) adj1 (resonat\$3 or oscillat\$4 or vibrat\$3)	US-PGPUB ; USPAT ; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	2006/03/29 11:56	
2	BRS	L2	393	first adj1 (resonat\$3 or oscillat\$4 or vibrat\$3) and (second or different) adj1 (resonat\$3 or oscillat\$4 or vibrat\$3) and (top or upper or first) adj1 electrode and (bottom or lower or second) adj1 electrode	US-PGPUB ; USPAT ; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	2006/03/29 11:57	



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Query: ((piezoelectric)) <AND> ( ( (first and second and electrode and  
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Results of searching in PCT (Full Text) for:

first near ( resonat\* or oscillat\* ) and first near electrode near ( thick\* or material ): 55 records

Showing records 1 to 25 of 55 :

Next 25 records	Start At	
Refine Search	first near ( resonat* or oscillat* ) and first near electro	

Title

1. (WO 2005/103645) FLEXURAL **RESONATOR** SENSING DEVICE AND METHOD
2. (WO 2005/091501) COUPLED BAW **RESONATOR** BASED DUPLEXERS
3. (WO 2005/087391) ASYMMETRIC MEMBRANE CMUT DEVICES AND FABRICATION METHODS
4. (WO 2005/084284) MULTIPLE ELEMENT **ELECTRODE** CMUT DEVICES AND FABRICATION METHODS
5. (WO 2005/084267) HARMONIC CMUT DEVICES AND FABRICATION METHODS
6. (WO 2005/084090) LIQUID CRYSTALLINE POLYMER- AND MULTILAYER POLYMER-BASED PASSIVE SIGNAL PROCESSING COMPONENTS FOR RF/WIRELESS MULTI-BAND APPLICATIONS
7. (WO 2005/077012) CMUT DEVICES AND FABRICATION METHODS
8. (WO 2005/071478) ELECTRIC APPLIANCE, SEMICONDUCTOR DEVICE, AND METHOD FOR MANUFACTURING THE SAME
9. (WO 2005/050717) MICRO-TRANSDUCER AND THERMAL SWITCH FOR SAME
10. (WO 2005/046053) FILM ACOUSTICALLY-COUPLED TRANSFORMER
11. (WO 2005/027284) PULSED CO2 LASER INCLUDING AN OPTICAL DAMAGE RESISTANT ELECTRO-OPTICAL SWITCHING ARRANGEMENT
12. (WO 2005/006509) A VERTICAL HAVING IMPROVED TRANSVERSE MODE CONTROL BY OPTIMIZING THE INCREASED OXIDE APERTURE RELATIVE TO THE LASER DIMENSIONS
13. (WO 2004/114345) MICRO-ELECTROMECHANICAL DEVICE AND MODULE AND METHOD OF MANUFACTURING SAME
14. (WO 2004/107494) CERAMIC RF TRIPLEXER
15. (WO 2004/095696) TEMPERATURE COMPENSATION FOR SILICON MEMS **RESONATOR**
16. (WO 2004/095595) ACTUATOR
17. (WO 2004/093239) LOW PROFILE CERAMIC RF FILTER
18. (WO 2004/093238) INTEGRATED PASSIVE DEVICES FABRICATED UTILIZING MULTI-LAYER, ORGANIC LAMINATES
19. (WO 2004/059836) MEMS PIEZOELECTRIC LONGITUDINAL MODE **RESONATOR**
20. (WO 2004/030208) FABRICATION OF FILM BULK ACOUSTIC **RESONATORS** ON SILICON <110> WAFERS USING CRYSTAL-ORIENTATION-DEPENDENT ANISOTROPIC ETCHING
21. (WO 2004/029585) METHODS AND APPARATUS FOR MANIPULATING DROPLETS BY

1281

**RESULT LIST**

Approximately 41 results found in the Worldwide database for:

**piezoelectric** in the title AND **electrode and first and resonator and thickness** in the title or abstract

(Results are sorted by date of upload in database)

- 1 Piezoelectric device, antenna duplexer, and method of manufacturing piezoelectric resonators used therefor**  
Inventor: NAKAMURA HIROYUKI (JP); ONISHI KEIJI (JP); (+3)      Applicant: MATSUSHITA ELECTRIC IND CO LTD (JP)  
EC: H03H3/02; H03H9/58      IPC: H03H3/02; H03H9/58; H03H3/00 (+3)  
Publication info: EP1530290 - 2005-05-11
- 2 Piezoelectric resonator and electronic components using the same**  
Inventor: INOUE KENJI (JP)      Applicant: TDK CORP (JP)  
EC: H03H9/13; H03H9/17A1C      IPC: H01L41/047; H01L41/08; H01L41/09 (+8)  
Publication info: US2005088061 - 2005-04-28
- 3 Energy trap type piezoelectric resonator component**  
Inventor: YAMADA MITSUHIRO (JP); YOSHIO MASAKAZU (JP); (+1)      Applicant: MURATA MANUFACTURING CO (JP)  
EC: H03H9/10; H03H9/02B; (+2)      IPC: H03H9/10; H03H9/17; H03H9/00 (+2)  
Publication info: US2004245892 - 2004-12-09
- 4 METHOD FOR MANUFACTURING PIEZOELECTRIC RESONATOR**  
Inventor: IMURA MASAOKI; INOUE KENJI; (+2)      Applicant: TDK CORP  
EC: H03H3/02; H03H9/17A1C      IPC: H01L21/00; H01L41/08; H01L41/09 (+14)  
Publication info: JP2005130068 - 2005-05-19
- 5 PIEZOELECTRIC RESONATOR AND PIEZOELECTRIC RESONANCE COMPONENT**  
Inventor: KURODA HIDEAKI      Applicant: MURATA MANUFACTURING CO  
EC:      IPC: H03H9/17; H03H9/00; (IPC1-7): H03H9/17  
Publication info: JP2005064689 - 2005-03-10
- 6 ENERGY CONFINEMENT TYPE THICKNESS LONGITUDINAL PIEZOELECTRIC RESONATOR**  
Inventor: KAIDA HIROAKI; YAMADA MITSUHIRO      Applicant: MURATA MANUFACTURING CO  
EC:      IPC: H03H9/02; H03H9/17; H03H9/00 (+3)  
Publication info: JP2003046362 - 2003-02-14
- 7 THICKNESS LONGITUDINAL PIEZOELECTRIC RESONATOR AND PIEZOELECTRIC RESONATING COMPONENT**  
Inventor: KAIDA HIROAKI; NAGAE TORU      Applicant: MURATA MANUFACTURING CO  
EC:      IPC: H03H9/10; H03H9/17; H03H9/205 (+5)  
Publication info: JP2003092529 - 2003-03-28
- 8 THICKNESS LONGITUDINAL PIEZOELECTRIC RESONATOR AND PIEZOELECTRIC RESONANCE COMPONENT**  
Inventor: KAIDA HIROAKI; NAGAE TORU      Applicant: MURATA MANUFACTURING CO  
EC: H03H9/58F2; H03H9/10; (+1)      IPC: H03H9/13; H03H9/17; H03H9/00 (+4)  
Publication info: JP2003046363 - 2003-02-14
- 9 ALUMINUM NITRIDE THIN FILM-METALLIC ELECTRODE STACK, AND THIN FILM PIEZOELECTRIC RESONATOR USING IT**  
Inventor: YAMADA TETSUO; NAGAO KEIGO; (+1)      Applicant: UBE ELECTRONICS LTD  
EC:      IPC: H01L41/09; H03H9/17; H01L41/09 (+3)  
Publication info: JP2003198319 - 2003-07-11
- 10 Piezoelectric resonator and ladder-type filter including the same**  
Inventor: ITASAKA YASUHIRO (JP); YOSHINO      Applicant: MURATA MANUFACTURING CO (JP)



**RESULT LIST**

Approximately **74** results found in the Worldwide database for:

**resonator or oscillator or vibrator** in the title AND **piezoelectric and first and second and material** in the title or a  
(Results are sorted by date of upload in database)

- 1 Acoustic resonator performance enhancements using recessed region**  
 Inventor: FENG HONGIUN (US); FAZZIO RONALD S (US); (+2)      Applicant:  
 EC:      IPC: (IPC1-7): H03H9/54  
 Publication info: **US2005275486** - 2005-12-15
- 2 Manufacturing process for thin film bulk acoustic resonator (FBAR) filters**  
 Inventor: RUBY RICHARD C (US); LARSON JOHN D (US); (+1)      Applicant:  
 EC: H03H3/02; H03H3/04; (+1)      IPC: **H03H3/02; H03H3/04; H03H9/58** (+3)  
 Publication info: **US2005088257** - 2005-04-28
- 3 Bulk wave resonator and bulk wave filter**  
 Inventor: LOBL HANS P (DE); MILSOM ROBERT F (GB); (+3)      Applicant:  
 EC: H03H9/05; H03H9/13; (+1)      IPC: **H03H9/05; H03H9/13; H03H9/58** (+4)  
 Publication info: **US2005199972** - 2005-09-15
- 4 Film bulk acoustic resonator structure and method of making**  
 Inventor: MA QING (US); WANG LI-PENG (US); (+1)      Applicant: INTEL CORP (US)  
 EC: H03H9/58F; H03H3/02; (+1)      IPC: **H03H3/02; H03H9/17; H03H3/00** (+4)  
 Publication info: **US2005030128** - 2005-02-10
- 5 PIEZOELECTRIC OSCILLATOR, PORTABLE TELEPHONE APPARATUS USING SAME, AND ELECTRONIC EQUIPMENT**  
 Inventor: KOYAMA YUUGO      Applicant: SEIKO EPSON CORP  
 EC:      IPC: **H03B5/32; H03H9/02; H03B5/32** (+3)  
 Publication info: **JP2005192179** - 2005-07-14
- 6 BAW resonator**  
 Inventor: AIGNER ROBERT (DE); HANDTMANN MARTIN (DE); (+2)      Applicant: INFINEON TECHNOLOGIES AG (DE)  
 EC: H03H9/58F2; H03H9/00U2; (+4)      IPC: **H03H9/00; H03H9/00**; (IPC1-7): H03H9/54  
 Publication info: **US2005012568** - 2005-01-20
- 7 Electronic component having a resonator and fabrication process**  
 Inventor: BOUCHE GUILLAUME (FR); SMEARS NICK (FR); (+2)      Applicant: ST MICROELECTRONICS SA (FR)  
 EC:      IPC: **H01L27/20; H03H9/15; H03H9/58** (+3)  
 Publication info: **US2005001698** - 2005-01-06
- 8 SURFACE ACOUSTIC RESONATOR AND ITS FILTER**  
 Inventor: KOMURA TOMOHISA; TANIGUCHI NORIO; (+2)      Applicant: MURATA MANUFACTURING CO  
 EC:      IPC: **H03H9/145; H03H9/64; H03H9/00** (+3)  
 Publication info: **JP2005260833** - 2005-09-22
- 9 Piezoelectric oscillator, portable phone employing piezoelectric oscillator, and electronic apparatus employing piezoelectric oscillator**  
 Inventor: MIYAZAKI KATSUHIKO (JP); KOYAMA YUGO (JP); (+1)      Applicant: SEIKO EPSON CORP (JP)  
 EC: H03H9/05B      IPC: **H03H9/05; H03H9/05**; (IPC1-7): H03B5/32  
 Publication info: **US2004178858** - 2004-09-16
- 10 Thin-film micromachine resonator, thin-film micromachine resonator gyroscope, navigation system using the thin-film micromachine**

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OR



AND

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OR



AND

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